



EMS Registry Project

August 8, 2008

EMS Advisory Board Update

For Your Information!



VDH/OEMS is planning a significant upgrade to its Pre-hospital Patient Care Reporting (PPCR) program.

Upgrades will include:

- Updating technology used.
- Move to the current NHTSA dataset.
- Move to NHTSA uniform technical formats.
- Create the ability of the system to integrate with other related systems.

1 million emergency medical calls a year in the Commonwealth



Why Upgrade the Current PPCR system?

1. OEMS identified the need to upgrade the current PPCR program to better meet the intent of the program.
2. To meet the business model of the National EMS Information Systems (NEMSIS) project.
3. To respond to the recommendations in the 2004 Joint Legislative Audit and Review Commission's report on EMS.
4. To meet the Virginia Information Technology Agency's (VITA) vision for information technology in the Commonwealth.
5. To meet the goals of the VDH Strategic Plan.
6. Improve VDH/OEMS' ability to meet its *Code for Virginia* mandates.



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OEMS Identified Limitations of the Current System

In 2004 the PPCR program was moved to the Div. of TCC with assessing, planning, and implementing an upgrade to the system:

Key Issues Included:

- The agencies did not have access to their own data.
- Output of data was limited.
- Technology limited the abilities of the program.
- The current system has limited automated features to assure data quality, automatic loading of data, reporting compliance, and perform simple data analysis.
- Program as is, delays data analysis.



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Benefits of Becoming A NEMSIS State

OEMS Signed a memorandum of understanding in 2004 with NEMSIS agreeing to participate with the NEMSIS project which includes:

- Using the revised NHTSA uniform prehospital dataset.
- Using the technical format (XML) as prescribed by NEMSIS.
- Use NEMSIS' standard for storing, importing and exporting data (XSD).
- Contribute to the national EMS database housed at NHTSA.

Currently thirteen states have submitted to the national EMS database and two are pending approval of their data.





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JLARC Recommendations

- Initiate the planning and development of a unified EMS patient care information system.
- Adopt the most current NHTSA dataset.
- Increase the use of EMS data to include:
 - Establishment of reimbursement rates.
 - Uniform definition of response time.
 - Support of training initiatives.






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IT Project Development for State Agencies

Since 2004 the State IT resources have dramatically changed. The Virginia Information Technology Agency (VITA) now assumes responsibility for all State IT services.

- The *Code of Virginia* establishes an “IT Governance” that mandates State agencies adhere to VITA requirements.
-  requires all state agencies to plan and secure IT projects through the CIO, using the following:
 - “Project Management Standards” (PMP)
 - VITA’s approval process

Why is VITA Important?

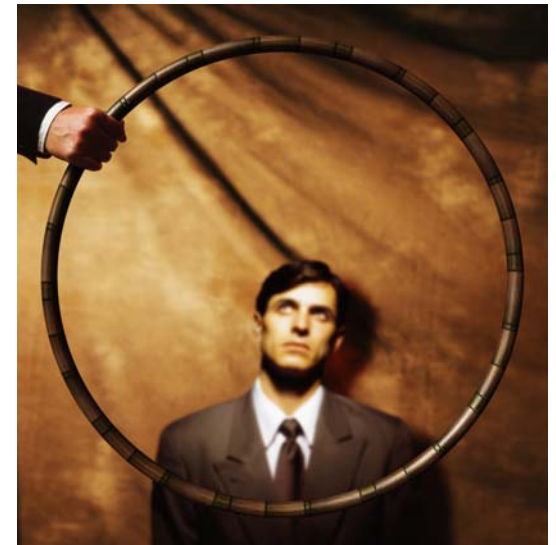
- Because this project and future OEMS projects:
 - Must be developed through VITA,
 - Must be approved by VITA,
 - Must be hosted and maintained on VITA equipment within their facility.

Why Did the State Move to VITA?

To promote and advance Project Management principles and services for IT projects within the Commonwealth.

- To ensure the project is managed correctly
- To ensure the project is successful
 - Projects are far more successful if proper project management practices are followed
- To ensure that the Commonwealth makes sound investments in technology that fit into the IT Strategic Plan

Draft



IT Governance Structure

A variety of documents are required to travel through the following structure prior to developing an IT program.



- Project Sponsor
- Program Manager
- Project Manager
- Agency IT Resource
- Proponent Cabinet Secretary



- VITA Project Management Division
- Commonwealth IT Solutions Committee
- IT Investment Board
- Virginia's CIO
- Secretary of Information Technology



Project Lifecycle to Date

Project lifecycle or what has been done so far..

Project Lifecycle to Date

- 2004 PPCR Program moved with OEMS to TCC.
 - OEMS identified need to significantly upgrade program.
 - 2004 JLARC report *Review of Emergency Medical Services in Virginia* made recommendations r/t the PPCR program.
 - **OEMS hosted a NEDARC S.W.O.T. analysis with stakeholders.**
- 2005 PPCR work group met to draft needs of a new program.
- 2006 OEMS and VDH's Office of Information Management reviewed the project.
- 2007 VITA approval process started.

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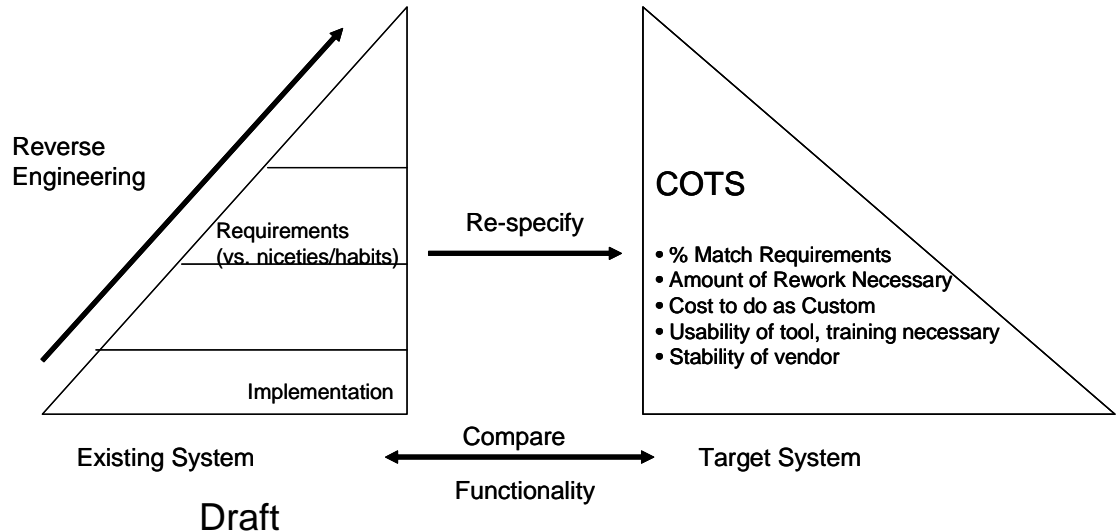
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Project Lifecycle to Date

- The result of working with the OIM:
 - **Enhancement** of current program was deemed not feasible,
 - **Custom building** a new system was desired by OIM, but the lack of sufficient resources, priorities of other VDH & OEMS projects would push the project back, and the specialization of a comprehensive EMS information system made this option non-viable.
 - OEMS received approval to seek to **purchase a commercial-off-the-shelf product (COTS)?**

Benefits of COTS Package?

- Reduced cost & time by eliminating design & development phase.
- Cost efficient maintenance through vendor.
- Reduce risk by obtaining a product that has been tried and tested.
- Reduce risk using a vendor experienced with implementing and training the same system.
- Benefit from a system designed for our business.
- Interstate benefits.



Other Benefits

Question: COTS versus Custom Design

Decision: Purchase a COTS package

Reasons: Estimated \$4.3 million in savings over custom design

- Decreased implementation time
- No development phase
- Commercially tested products

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What Has Been Done So Far

- Since VITA was established
 - VDH amended its IT Strategic Plan to include the EMS Registry project (essentially VDH approval to plan and procure a new application).
 - Drafted a project proposal, charter, complexity model, risk analysis, cost benefit analysis, and project analysis.
 - Contracted with a VITA approved project manager as required by VITA.

Approvals Required by VITA

Preliminary Documents

- Risk Management Plan
- Scope Document
- Organizational Plan
- Communications Plan
- Risk Management Plan
- Cost/Budget Baseline
- Integrated Change Controls
- Work Breakdown Structure (WBS)

Steps for Procurement

- Requirements Gathering
- Develop Budget Plan
- Procurement Plan
- Develop the Request for Proposal (RFP)
- Edit RFP as required by VITA/DGS
- Announce RFP
- Evaluate RFP Responses






VITA Project Approval Steps

- ✓ • Project Initiation (approval to plan the project)
- ✓ • Project Planning Phase
- Project Development Phase
- Project Execution
- Closeout
 - Purpose is to report issues / lessons learned
 - User acceptance evaluation






VITA Project Approval Steps

Required Documents to Approve Planning

-  • Agency IT Strategic Plan and Amendment
-  • Project Complexity Model
-  • Agency Procurement Request (APR)
-  • Preliminary Risk Analysis
-  • Cost/Benefit Analysis

Required Documents to Approve Project

-  • Project Proposal (Secretariat approval)
-  • Project Charter (Secretariat approval)
-  • Request for Proposal

VITA Project Approval Steps

Chosen Vendor Responsible for

- Implementation Plan
- Implementation Plan - WBS
- Training Plan
- Training Plan - WBS

Other Steps Required by VITA

- Two Separate IV&V's (provider qualifications and statement of work)
- Project Closeout
- Request for Proposal

Other Task Being Performed

JAD sessions were held in a sampling of locations throughout the Commonwealth.

Joint Application Design/Development or JAD was developed by Chuck Morris of IBM Raleigh and Tony Crawford of IBM Toronto in the late 1970's. (University of Missouri, 1999)

JADs reduced system development time. In JAD, information can be obtained and validated in a shorter time frame by involving all participants (or at least a representative set of participants) who have a stake in the outcome of the session. JAD eliminates process delays and has been shown to reduce application development time between 20% to 50%. (University of Missouri, 1999)



Other Task Being Performed

- Performed JAD sessions (requirements gathering) in a variety of locations throughout the state. (NOVA, Blacksburg, Tidewater, Central and at OEMS)
 - Two JAD sessions were held in each area:
 - an evening session including actual frontline providers
 - Followed by a day session focused more towards agency leadership, vendors and hospital reps.
- Each JAD had 12-15 roles identified and included volunteer, career EMS, vol. and career fire based, Medevac, data entry only personnel, ALS, BLS and first responder only agencies, QA, ED management, Trauma Coordinators, program reps, and others.



Other Task Being Performed

Also have interacted with other agencies such as:

- The VDH Data Warehousing Group (hospital data)
- The DMV
- Discussed project with DFP at OEMS DFP quarterly meeting
- NEMSIS Technical Center
- Discussed the project with every other NEMSIS state
- Communicated with multiple EMS software vendors

What Can We Tell You Now?

- A new minimum dataset will be established.
- The technical format will change to the NHTSA v2 XML format, otherwise known as NEMSIS Compliant.
- The new system will be Web based.
- Electronic Patient Care Reporting will be an **option**.
- Agencies will have access to the data they have submitted via the internet.
- The system will be built on the philosophy of being able to be expanded upon for EMS system issues.

Myth v. Fact

- Myth: agencies will have to abandon current EMS software programs they have purchased.
- Fact: agencies will need to continue to submit the prescribed minimum dataset using the single technical format used by VDH/OEMS (NEMSIS Compliance)
- Myth: agencies can stop submitting using current standards until the updated program is in place.
- Fact: agencies will be notified directly of the implementation window for their agency and adequate time will be given.
- Myth: thanks to VITA we know exactly what the timeline is.

What Can Agencies Do Now?

Agencies that are paper based and manage their PPCR own records:

- Identify person at your agency who is responsible for PPCR data (add to bylaws or chain of command as needed)
- Ensure you have a quality personal computer
- Establish internet access at the station (s) where data will be entered or uploaded
- Begin discussion about whether your agency wants to convert to ePCR.
 - IF your agency has to pay for the hardware needed for ePCR,
 - IF funds are made available for the hardware needed pay for ePCR, and
 - IF funds are available only to pay for the original equipment and not to repair or replace worn equipment.

What Can Agencies Do Now?

Commercial vendor users:

- Consider communicating your future needs to meet State submission requirement to you vendor.
- If purchasing or renewing a vendor contract consider language that clearly identifies the need to submit state data by current and future standards and clearly identify the costs needed.
- Assure continued compliance with submission requirements.



Questions/Contact Info

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